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ABSTRACT

This issue paper presents an assessment of Georgia's need for schools facilities--both current need as well as the additional need created by law HB 1187. This paper identifies the current unmet needs of the state, which are primarily in the fastgrowing systems. For the purposes of this paper, the current unmet needs are addressedseparately from the impact of HB 1187. The pre-HB 1187 needs are identified from the facilities plans in terms of classroom additions, new schools, renovations, and modifications. The needs are expressed not only in terms of units but also in terms of eligible costs at a standard state rate that is applied to all systems. The rate varies between types of facilities and level of school. Then, the impact of HB 1187 is examined and an estimate of the additional need for classrooms as a result of HB 1187 is provided. That need is expressed at this point in terms additional classrooms needed. For illustrative purposes only, the number of additional classrooms or instructional units is broken into new schools and additions. No definitive cost estimates are provided at this point until all 180 facilities plans can be examined with local facilities personnel to determine how many of these additional classrooms would be accommodated in new schools. (EV)

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ASSESSING THE NEED

Governor's Education Reform Study Commission

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EXECUTIVE SUMMARY

This issue paper is not a paper that sets out alternatives, but is an explanation and assessment of the need for facilities – the need for classrooms that existed before House Bill 1187 and the impact of that bill on the need for additional classrooms. The data presented in this paper are estimates and more accurate data will be collected and analyzed to determine, system by system, the number of new classrooms or Instructional Units (IU) that are needed. Such a determination is critical to adequately estimating projected costs because the cost of new schools is two to three times the cost of adding a like number of classrooms to existing schools.

A review of relevant literature indicates that construction of and improvements in school facilities are a national problem and not unique to Georgia. Georgia's expenditures per student in addressing the capital construction needs of schools are slightly above the national average. This issue paper includes a brief overview of present funding methods in Georgia.

The need was determined by assessing the data compiled under the legal mandate requiring each school system to develop a long-range (five year) facility plan. Both the need for classrooms and the estimated costs to meet the need prior to HB 1187 are analyzed using the data from the current 180 local facilities plans. The local boards of education and the State Board of Education have approved all of these plans. The eligible current construction need for school facilities up to FY 2004, (additions, new schools, renovation and modification) without factoring in the impact of HB 1187, is estimated to be $900 million with $678 million of that total being for new schools primarily in the largest and fastest growing systems. This dollar estimate uses $49 per square foot for all additions, $49 per square foot for elementary schools, $51 per square foot for middle schools, and $53 per square foot for high schools.

The estimated impact of HB 1187 in terms of classrooms needed ranges from 5,500 to 6,683 classrooms. Limitations of the assessment data and the procedures necessary to make a reasonable estimate account for the range of need identified. For systems whose facilities plans were recently revised, the student growth and classroom need that is projected to 2004 regardless of the impact of HB 1187 can be factored out of the analysis. For systems whose facilities plans will need to be revised in the next year or two, the impact of growth and HB 1187 requirements are not easily factored out. In addition, a 1995 change in the funding class size in the QBE formula was never revised in the calculation of classroom need in the facilities plans. Thus, some of the HB 1187 need shown here may be catch-up on the 1995 change. Finally, it is difficult and time consuming to project needs because there is no single facilities database that can be easily used to make projections and analyze the impact of legislative changes. Using the data available, the estimated impact of HB 1187 using the current dollars per square foot is estimated to be $468 million.

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INTRODUCTION

This issue paper does not aim to present alternatives as most issue papers have done. Its purpose is to present an assessment of need for schools facilities – both current need as well as the additional need created by HB 1187. This assessment of need is necessary to structure alternatives for the financing issue paper. Some issues do arise out of trying to estimate need that have been addressed by other issue papers, one of which is the need for a better database that is always current.

This paper identifies the current unmet needs of the state, which are primarily in the fast growing systems. For the purposes of this paper, the current unmet needs are addressed separately from the impact of HB 1187. The pre-HB 1187 needs are identified from the facilities plans in terms of classroom additions, new schools, renovations and modifications. The needs are expressed not only in terms of units but also in terms of eligible costs at a standard state rate that is applied to all systems. The rate varies between types of facilities and level of school.

Then, the impact of HB 1187 is examined and an estimate of the additional need for classrooms as a result of HB 1187 is provided. That need is expressed at this point in terms additional classrooms needed. For illustrative purposes only, the number of additional classrooms or Instructional Units is broken into new schools and additions. No definitive cost estimates are provided at this point until all 180 facilities plans can be examined with local facilities personnel to determine how many of these additional classrooms would be accommodated in new schools.

A number of recent research studies indicate good facilities are an important precondition for student learning. Some of the studies cited in "Impact of Inadequate School Facilities on Student Learning"[1] strongly suggest that the condition of school facilities may have an impact on attendance, student behavior, and student achievement. A leaky roof, inadequate heating or cooling or a severely overcrowded classroom inhibits student learning. The first step in providing a good learning environment is accurately assessing and projecting the need.

National Trends

The need for school facilities and the changes and improvements those facilities require are influenced by a variety of factors. Among the factors that influence the need for facilities construction, renovation, and modification are:

- ∑ Changing demographics,
- ∑ Current "unhoused students"
  - o In non-permanent classrooms

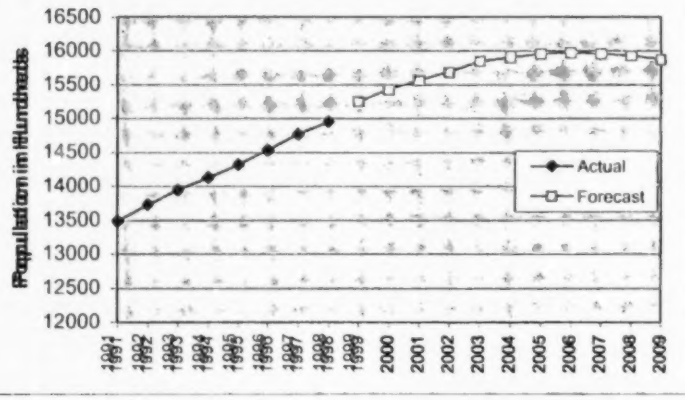
[1] www.ed.gov/ints/construction/impact2.html

- In substandard classrooms
- ∑ The infusion of computer technology,
- ∑ Programs for students with special needs,
- ∑ New instructional practices,
- ∑ The adequacy of maintenance budgets, and
- ∑ How many students comprise the optimal size of a class or school.

Assessing school facilities need is a daunting challenge because of the variety of influencing factors and because of the continuous nature of change.

Currently, there are approximately 46.8 million pre-school, elementary, and secondary students currently attending the more than 86,000 public schools in the United States, and student enrollment is growing. The enrollment for the 2000-2001 school year will reach an all time record, and it represents an increase of 5.6 million students since the 1990-91 school year when 41.2 million students were enrolled.[2] As shown in Figure A,[3] the rate of growth is decreasing for the coming decades in the south region of the U.S. Growth in Georgia is projected to be similar to the south region largely because of the enrollment of the grandchildren of the baby boomers, along with the children of the increasing numbers of families who have immigrated to the United States in the last 20 years.

Figure A
South Region Student Population Trend
1991 to 2009



Currently there are slightly over 50 million school-aged children, five- to 17-year-olds. This number is expected to reach 60 million by 2030 and 90 million by 2100. This represents an increase of 42 million in the 21st century, which is considerably greater than the 30 million increase in the number of school-aged children from 1900 to 2000.[4]

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[2] U.S. Department of Education, NCES, Digest of Education Statistics 1999, http://nces.ed.gov/pubs2000/digest99

[3] U.S. Department of Education, NCES, Digest of Education Statistics 1999 / Chapter 1 - All Levels of Education/ Table 3. --Enrollment in educational institutions, by level and by control of institution: 1869-70 to fall 2009, http://nces.ed.gov/pubs2000/digest99/d99t003.

[4] U.S. Department of Education, NCES, Digest of Education Statistics 1999, http://nces.ed.gov/pubs2000/digest99

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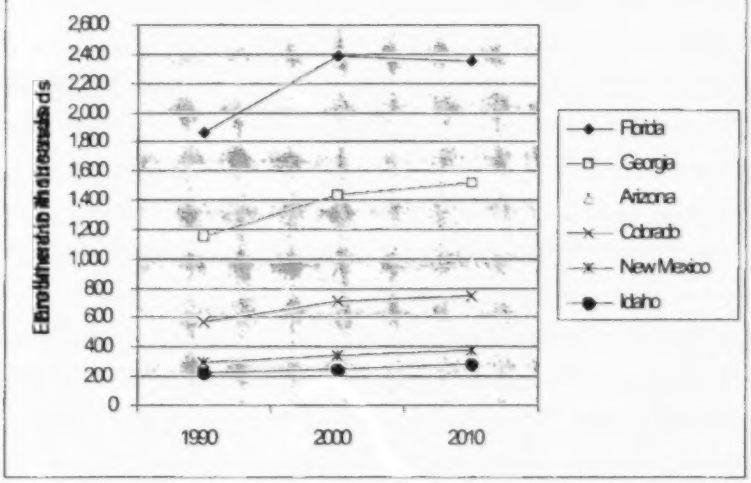
Table 1
States with the Highest Twenty-year Enrollment Percentage Change

Highest Percentage Growth States	K-12 ENROLLMENT in THOUSANDS			PERCENT CHANGE		
	1990	2000 (Projected)	2010 (Projected)	1990-2000	2000-2010	1990-2010
California	4,950	6,027	6,305	21.7	4.6	27.4
Texas	3,383	4,024	4,243	19	5.4	25.4
Florida	1,862	2,392	2,348	28.5	-1.8	26.1
Georgia	**1,152**	**1,440**	**1,518**	**25**	**5.4**	**31.8**
Arizona	640	893	978	39.6	9.5	52.8
Colorado	574	716	753	24.7	5.2	31.1
New Mexico	302	339	380	12.3	12.1	25.4
Idaho	221	249	284	12.8	14.1	28.6
Nevada	201	336	376	66.9	11.9	86.8
Alaska	114	139	153	22	10.1	34.3

Georgia's monumental challenge is the result of unprecedented growth in Georgia's student enrollment in the 1990s, coupled with steady projected growth through 2010, as reflected in Table 1 and Figure B below. This chart was developed from NCES data and shows the 20-year trends in the 10 states with the highest percentage growth in student enrollment. Like the small states of Nevada and Arizona, Georgia must deal with high percentage growth. Like the large states of Texas, California and Florida, Georgia must deal with high growth in numbers of students.[5] Figure B illustrates the projected growth of the middle six states in the table. The rate of growth was much higher from 1990 to 2000 than the expected growth from 2000 to 2010.

Figure B
High Growth K-12 Enrollment States



Recent national studies also provide information about the condition of America's schools and challenges faced by

[5] Ibid.

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Georgia and other states to address the need to renovate and repair existing school facilities and to build new facilities. In June 2000, the U.S. Department of Education released a report about the condition of the nation's public schools.[6] The findings in this report include good news and bad news, and in general, come as no surprise to those familiar with school facility conditions and needs in Georgia. On the national level:

- ∑ Approximately 75 percent of schools serving 34 million students report buildings in adequate condition, while 25 percent of schools serving about 11 million students report at least one building in less than adequate condition.
- ∑ Schools in central cities, rural areas, and small towns were more likely to report less than adequate buildings or unsatisfactory environmental conditions than schools in urban fringe areas or large towns.
- ∑ Portable classrooms are the most frequently used alternative to ease overcrowding, a method used by about 28,600 schools.

In 1995, the United States General Accounting Office reported that about ***one-third*** of the nation's public schools needed to be renovated or replaced.[7] The National Center for Education Statistics (NCES) estimates two new K-12 school buildings are started each business day, with the total costs approaching $16 billion in 1999. A recent Public Agenda report concluded that an additional $200 billion is needed to modernize old school buildings, and according to the National Education Association, it would take $322 billion to adequately repair existing schools, build new schools and wire them for new technologies. In another recent study, annual construction expenditures were reported to have grown almost 40 percent for K-12 school construction from 1990 to 1997. The data in this national study showed that most of the spending during this period was for new facilities and additions to existing facilities with significantly less being spent on renovations.[8] Based on these national studies, the need for building and improving the school facilities for our public school students is not a challenge unique to Georgia.

To understand state efforts to meet the shortage of school buildings, the National Governor's Association Center for Best Practices conducted research to determine current state activities supporting school construction. The Center discovered Governors are focusing more attention on school construction and modernization than ever before.[9] The state of Georgia has been fortunate to have a formalized capital construction program in place for over 20 years with a planning process that standardizes the assessment of need for each local system.

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[6] National Education Association Research and NEA Government Relations, "Modernizing Our Schools: What Will It Cost?" Washington DC, June 2000.
[7] School Facilities: Condition of American's School (GAO/HEHS-95-61, Feb. 1, 1995)
[8] School Facilities: Construction Expenditures Have Grown Significantly in Recent Years (GAO/HEHS-00-41, March 2000, p.4).
[9] National Governor's Association, Education Policy Studies Division, Building America's Schools: State Efforts to Address School Facility Needs, June 14, 2000.

BACKGROUND

Georgia's approximately 1,875 public schools are divided into 180 systems. Of the 180 systems, 159 are county systems and 21 are independent city systems. These systems range in size from one school containing 137 students in grades K-6 to the largest system containing 85 schools with over 103,000 students (See map in Appendix A).

The actual construction needs vary widely among these 180 systems. Some systems have all students adequately housed in facilities that are in good condition. Other systems have literally thousands of students housed in trailers or crammed into every available space. Even in those systems with all students housed, a number of schools may need major renovation and modifications. The local ability to fund capital construction using totally local dollars varies substantially among these 180 systems.

Development of Georgia's Capital Outlay Program

Georgia was one of the first states in the nation to require local systems to develop long-range facilities plans and provided an orderly legislative process and logical effort to assist local school systems in meeting their needs for public school facilities. Georgia's program has often been reviewed by other states in making decisions to develop ongoing funding for capital construction in their states. In the last five years Ohio, South Carolina, Alabama, and Tennessee have sent representatives to examine Georgia's program.

During the period from the early 1950s to the late 1970s, some state funding was provided to school systems experiencing extraordinary growth in student population, consolidating schools, or adding vocational facilities. Generally, legislative support for capital improvement of schools was limited to specific projects in specific systems. Many smaller systems and/or systems "out of political favor" had no chance to receive state assistance of any kind to support long-range facilities planning or construction activities. Then in 1978, legislation was enacted by the General Assembly to create a new capital outlay program that would provide funding to local school systems annually on a systematic and equitable basis.

The Capital Outlay Program was first funded in FY 1981. Funds were to assist all school systems in meeting their specific, identified facilities needs--including renovations, modifications, and additions at existing facilities as well as the construction of new schools. Each school system is required by law to develop a long-range plan, called a Local Facilities Plan (LFP) to qualify for funding under the Capital Outlay program. The LFP is based upon the instructional program goals established by each school system encompassing the state adopted curriculum requirements.

Over the years the original Capital Outlay Program has been modified several times. During these 20 years as many as six different programs or variations on programs have delivered funding that was based upon the local long-range facility plan. Of course, all local boards of education are required to provide a local portion of any state funded capital

construction project, but may provide additional local funds to build more than the minimum the state requires.

Needs Assessment Process

Every local school system is required by law (O.C.G.A. 20-2-260) to develop a comprehensive, long-range facilities plan in order to participate in the State capital outlay program. A companion paper entitled, "Comprehensive Facilities Planning" describes in detail the development and content of the LFP. This paper contains an abbreviated explanation of the LFP, as it is the basis for assessing needs at the local level. The data contained in the 180 LFPs, developed by each system, are the basis for this needs assessment paper. In the every day world, numbers of students change daily, building needs change, and cost estimates escalate. Therefore, the sum of the 180 plans represents various "snapshots" of the individual need of each system at a particular period in time.

Each school system's long-range facilities plan includes, at a minimum, the necessary information to develop a realistic estimate of the costs to do what needs to be done at a particular point in time. The local facility plans are based upon a projected number of full-time-equivalent (FTE) students. The organizational pattern, school sizes, and the educational programs each system plans to offer are included school by school. The current status portion of the facilities plan includes current enrollment and a detailed facilities inventory of each of the existing schools. State staff members actually walk into each classroom, and with an architect's assistance, develop cost estimates identifying the renovation activities and the modifications needed to bring existing facilities up to a standard condition in order to meet current or planned program requirements.

Then student population is projected forward for a five-year period. Increases in enrollment may result in additions to existing schools or new schools or both. Decreases in enrollment may result in schools being closed. Sometimes population shifts, or aging buildings require schools to be phased out and new schools built. Cost estimates for all identified needs, including changes in meeting instructional needs are included in the plan. An example of changes in instructional needs would be the modification of the traditional industrial arts classrooms into technology areas housing 18 to 22 students in individual technology education clusters. Most local facilities plans now include changes in the infrastructure in existing schools to accommodate the new computer technology and changes in programs to incorporate the use of computers. Sometimes the cost is minor and sometimes it is major. Of course, this depends on each individual building and the quality of its original construction and how it has been maintained.

Although the State Department of Education, Facilities Services Unit, is charged with assisting each system in developing the local facilities plan, it is essentially developed according to the wishes of each local board of education. State Board rules dictate the format, and Georgia law determines what is eligible for funding, but the local board of education determines the academic programs, which schools are added too, phased out, and where new construction occurs. Local boards also determine the priority order

followed in applying for state funding. The data summarized from the 180 local facility plans located in the State Department of Education was updated or estimated through 2004, and forms the basis for this needs assessment document.

To ensure a degree of standardization statewide, each system's local facilities plan is reviewed and approved by a survey team. The law requires that a comprehensive survey team be selected from an approved list of educators from outside the local system. The team visits each school, reviews the LFP, and makes sure that plan is in compliance with law and rules. This survey team is empowered by law to recommend what is in the best interest for children, as well as to ensure equitability. These team members have expertise in the areas of administration, facilities, and curriculum. The survey team then recommends adoption of the LFP by the local board of education. The new facilities plan may be approved by the local board of education and forwarded to the State Board of Education for approval. With an approved local facilities plan in place, the system is eligible to participate in any capital outlay funds appropriated during the next session of the legislature.

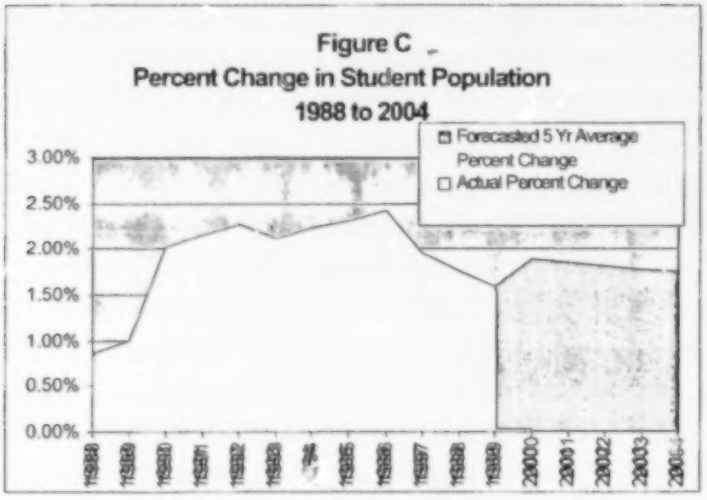
To ensure that each school system's plan remains as accurate and current as possible, an annual evaluation and update is made of each facilities plan as required by law. This is referred to as the "annual update" of all plans and is completed after the end of each school year. During this annual update, each plan is adjusted to delete any projects that have been funded during the past year, and to reflect any changes in the system's projected full-time-equivalent (FTE) student population data through the end date of the plan. Every school system must complete a new needs assessment and develop a new plan on a five-year cycle. Some systems may need to develop a new plan prior to the end of the five-year planning period if significant, unforeseen changes occur and development of a new plan is necessary to accurately reflect that system's facilities need.

The Present Capital Outlay Program

When the current Capital Outlay Program was enacted in 1978, the student population in Georgia was declining. The enrollment figures continued to decrease until 1984 when this trend reversed and the average student population reported in grades 1-12 for the 1984-1985 school year increased by almost 9,000 students. While the data show the average student population appeared to increase significantly from 1985 through 1988, the growth in grades 1-12 remained almost constant at 9,000 new students per year during this period. However, implementation of the full-day kindergarten program in public schools over the three-year period from 1985 to 1988 resulted in an increase of approximately 10,000 new kindergarten students reported every year during this three-year period.

From 1991 to the present, the growth rate has fluctuated from 22,075 to a high of 31,651 (See Appendix B for maps and data set of percent change in average FTE and student growth.) The average growth over the last five years is a little over 24,000 per year. As shown in Figure C, ***there has been a four-year decline in the rate of growth and the number of students added each year.*** Statewide student enrollment is projected to

continue to grow, but at a lower percentage change. This statewide trend is consistent with the national trend that shows student population growth leveling out over the next five years. However, growth may be more pronounced in individual systems. (See Appendix F for the data set.)



One method used to illustrate the impact of the growth in student enrollment on the total state facility needs is done by looking at the fastest growing systems from 1996 to 2000. Of the projected growth next year (FY 2002 Capital Outlay applications) almost one-half of that growth is in the five systems with the largest current student populations. Over 66 percent of the total projected growth is reflected in the top 10 systems as reflected in Table 2 below.

Table 2
Systems with the Highest Student Growth

System Name	Average Student Population 1999-2000 School Yr	Student Change 1996 to 2000	Total Student Growth	Percent of Total Growth for FY 2002
Gwinnett County	103,133	5,143		
Cobb County	92,998	2,705		
Fulton County	65,400	2,516		
Henry County	21,743	1,577		
DeKalb County	91,682	1,427		
Subtotal			13,368	47.91%
Forsyth County	15,475	1,344		
Clayton County	44,567	1,226		
Paulding County	15,044	993		
Cherokee County	24,550	919		
Hall County	19,331	602		
Subtotal			5,048	18.23%
Two-thirds of Growth in FY 2002			**18,416**	**66.14%**
All other systems			6,184	33.86%
TOTAL			24,600	100%

Further, as Table 3 below indicates, some small systems show that, although numbers of increasing students by systems are lower, the percentage of the increase is much higher. Table 3 also translates the impact of growth into a rough estimate for the need for

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additional classrooms. For example, if Forsyth County continues to grow at the rate of 10.52 percent per year that system may need 20 more instructional units. This estimate is for illustrative purposes only. As this paper will later discuss, the number of instructional units needed is contingent upon the grades in the school and the preferred number of FTE in the school. Nevertheless, this estimate helps illustrate the impact of growth and the need to plan and manage facilities.

Table 3
Systems with the Highest Percent Change in Student Population

System Name	Ave Student FTE 1999-2000 School Yr	Amount of Change 1996 to 2000	Percent Change 1996 to 2000	Estimated number of additional IUs needed from 1996 to 2000	Estimated number of IUs needed per year based on percent change of population
Forsyth County	15,475	1,344	10.52%	79	20
Henry County	21,743	1,577	8.49%	93	23
Union County	2,808	177	7.60%	10	3
Paulding County	15,044	993	7.59%	58	15
Dawson County	2,629	166	7.28%	10	3
Banks County	2,253	116	5.75%	7	2
Gwinnett County	130,133	5,143	5.56%	303	76
Barrow County	8,043	320	4.31%	19	5
Bartow County	11,506	454	4.27%	27	7
Fulton County	65,400	2,515	4.14%	148	37

The analysis of growth is a complex, ever changing process because so many social and economic factors surface and are reflected in the student population. For example, this data clearly shows percentages portray only part of the picture. Table 3 shows that Banks County has a higher percent student growth rate than Gwinnett County. However at the Banks County rate of growth, the system may have to add seven new classrooms over the course of four years. On the other hand, Gwinnett may need to construct over 303 instructional units over four years.

From the beginning of the current program, each system's annual entitlement earnings have been based on each system's pro-rata share of the amount authorized for the program by the General Assembly each year. In the regular capital outlay program, the program authorization level set by the legislature has been at the $100 million level each year from 1981 to 2001 except for 1984 and 1985, when the program authorization levels were set at $60million and $40 million respectively. The system's entitlement earnings represent a "paper credit" that can only be converted to "real dollars" through the appropriations process. Each year, every school system must decide how to use their previous and projected entitlement earnings by:

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- ∑ Submitting an application to DOE to use their entitlement earnings to complete the next priority in the approved plan;

- ∑ Allowing the entitlement earned to accumulate until some future date when an application will be submitted; or

- ∑ Submitting an application to DOE for advance funding if insufficient entitlement is not available for the first priority in the system's approved plan and specific criteria is met.

Some form of advanced funding has been part of the Capital Outlay law from the beginning. Generally, the proposed project must be eligible for at least three times the amount in regular entitlement proposed for that year minus previously accumulated entitlement. If the eligibility criteria stated in the law are met, a system may decide to submit an application for advance funding. If the project is approved for funding by the General Assembly, the system receives state funds to complete the project included in the advance funding application. When funds are appropriated for an advance funding application, any amount not previously earned results in a debt being incurred. This advanced funded debt must be repaid from future entitlement earnings.

When a project is advanced funded the need remains in the plan until the remaining debt is paid off. The advance funding component has been most successful, particularly for the smaller systems. However to develop a "true" construction need the advanced funded projects must be removed from the existing construction need reflected in the current plans. One of the data limitations is that the need formula factors out advanced funding payback when assessing need, but such systems may have a real need even though it is offset by prior debt.

Advanced funding is one of three special programs that are part of the State's Capital Outlay program for schools. Though funding will be addressed in a separate issue paper, a brief explanation of the three programs follows.

Incentive Advance Funding Capital Outlay

During the 1985 legislative session, the first significant change was made in the legislation governing the capital outlay program. A program component identified as Incentive Advance Funding was added to the existing program as an incentive to encourage school systems to close small schools, consolidate schools within systems, and merge schools across system lines. In the 1991 session of the General Assembly, a sunset provision was inserted into the law to prevent any additional school systems from qualifying for incentive advance funding for reorganizing and consolidating schools. While no additional school systems were allowed to qualify and apply for incentive advance funding after June 30, 1992, school systems with plans approved prior to July 1, 1992 that included approved projects, were allowed to continue submitting applications annually until all of the incentive advance projects were funded.

Exceptional Growth Capital Outlay

Because of the growth in the student population in Georgia around the mid-nineties, the need for new facilities resulted in a change in the law to add a second tier of funding to assist school systems experiencing growth. The Exceptional Growth Program component was added to the existing Capital Outlay Program in 1996. This program provided another tier of funding with the potential of providing an additional $100million per year for school systems where the student population was growing. Funds were appropriated for the first time under this program in FY 1996. While the funds for the regular, regular advance, and incentive advance components of the program were generally derived from the sale of state bonds, the funds for the Exceptional Growth Program component are derived from lottery revenue.

The first year the Exceptional Growth Program was authorized, each school system experiencing growth in the student population over a four-year period earned entitlement based on a pro-rata share of the $100million authorized by the General Assembly. The second year, the legislation for the Exceptional Growth Program was amended to limit participation to those school systems experiencing an annual average growth of at least 65 FTE and an annual rate of growth of at least 1.5 percent over the previous four-year period. Growth funding has been authorized at the maximum level of $100million for three of the five years since this program component was first authorized. In FY 1997, the program was authorized at $80 million, and in FY 1999 the program authorization level was set by the General Assembly at $40 million.

Low-Wealth Capital Outlay

The Low-Wealth Program is a temporary part of the State Capital Outlay program. First funded in FY 2000, the program sunsets after three years. Under the current legislation, next year (FY 2002 applications) will be the last year Low-Wealth Applications may be submitted. The Low-Wealth School Systems map in Appendix C includes all the systems that have received funding under the Low-Wealth Program funding component in FY 2000 and FY 2001 or have qualified for funding in FY 2002. To qualify, a system must meet property tax, sales tax, per capita income criteria, raise the millage rate to 12 mills, have an outstanding bond or SPLOST, and have one or more years of advanced funding still due. A system must meet all six criteria to qualify for funding under the Low-Wealth Program. Not all systems that qualify get funding because some local matching funds are required. The Low-Wealth Program contains a requirement for some local matching funds. Some of the systems qualifying for funding under the Low-Wealth Program have had difficulty accumulating sufficient local funds to access the state funding available under this program component.

Entitlement Earnings

Georgia's Capital Outlay Program has generally been perceived as fair and equitable by the local systems, in that the money appropriated has been based upon the development of each system's local facilities plan that reflects the actual need. In that the maximum program authorization level was set by law at $100 million in 1979 and has not been increased the percentage of the actual identified need addressed has not remained constant. Except for the last two years and 1994, capital outlay needs have out paced available funding. Though the state funds $100 million a year in regular entitlement funding and $100 million in exceptional growth, facility needs continue to increase. A projected growth of 24,613 new students a year may increase the need by an estimated $250 million.

To this point, this paper has provided a general description of how local school systems assess their needs through the development of a LFP. The paper has also explained the regular and special entitlement programs under the Capital Outlay program. Before assessing the capital needs for school facilities, it is important to understand the limitations on the data being used and how those limitations affect the estimated impact of HB 1187 projected to FY 2004.

Data Limitations

An explanation of each of the following limitations is helpful in understanding the data – what's left out and why and how the identified *eligible state need* is only part of the picture.

In identifying current need, especially in dollar terms, it is important to understand what types of costs are not included in the needs/cost analysis, because they are not eligible for funding under the state capital outlay program. The current program does not provide funding for land, site preparation, non-classroom facilities, and special programs such as alternative schools, psycho-educational centers, and space for pre-kindergarten.

Land and Site Preparation: The biggest cost items not included in construction need are land acquisition and site preparation. Land costs have tremendous variation among systems as well as within systems depending on where the rapid growth areas are located. Topography as well as soil and subsoil conditions can also cause very wide variations in cost. Since the Capital Outlay program was initiated, it has been policy not to include land and site preparation costs because of this large variation.

Non-classroom facilities: The data does not reflect the total cost or scope of a school construction project because items such as auditoriums, tracks, swimming pools, other athletic facilities, system central office facilities or transportation facilities are not funded by the state. The state focus is on the classroom and the facilities absolutely necessary to supporting that classroom and the instructional mission of the school.

Special Educational Needs: The state does not participate in the capital funding of classroom facilities that serve certain special educational purposes such as psycho-educational centers, alternative schools, or spaces used for pre-kindergarten. Even though the state provides operational funding for these programs, it does not participate in capital funding for the facilities needed by the program.

Many systems have alternative schools or share an alternative school facility with other systems. There are also 24 psycho-education centers throughout the state and all of them serve more than one school system with a main center and a number of outposts. It is the responsibility of local systems to provide the necessary housing for the alternative schools and the psycho-education center. Often alternative schools and psycho-education centers will be housed in older schools or schools that were phased out of a local system's capital outlay plan for economic reasons. Many systems may have severe needs for electrical wiring to support new technology. Other systems have roofing problems and sometimes window units provide the only air conditioning. However, no capital outlay funds are made available to provide facilities for these specialized educational programs.

Pre-kindergarten is currently funded by lottery funds and administered by the Office of School Readiness (OSR), not the State Department of Education. The Office of School Readiness funds programs in a variety of settings. OSR does not provide any funds to public schools or private providers for renting, leasing or building facilities for the Pre-K program. Providers are responsible for supplying space, whether it is in a public school, church, or private daycare center. In many cases, classrooms in public schools if available are used to house pre-kindergarten classes. The present data used to develop this needs assessment does not accurately reflect the situations where pre-kindergarten classes would be housed in spaces built for, and needed by, K-12 students. In fact, some school systems may show no additional need for elementary classrooms as a result of HB 1187 because they have classrooms occupied by pre-k students. The pre-k classrooms do not count toward meeting K-5 needs. The impact of HB 1187 on the Pre-K programs in the state has not yet been determined.

SPLOST Funding: Another limitation in analyzing the data is accounting for projects funded locally by SPLOST money. Usually projects built totally with SPLOST receipts are not taken out of the DOE entitlement calculations until the facility is actually occupied.
Since 1997, when SPLOST started, over 158 systems have been authorized to collect up to $6 billion in local sales taxes for facilities renovation, construction, and other needs. In developing this paper, those construction projects identified that are to be completed sometime during the next school year have been removed for the purpose of assessing the current need. However, there are projects that may be constructed with SPLOST funds that may not have been removed from the assessment of need if not started or identified by a local system to the facilities consultant. In addition, those applications submitted to the legislature this year as FY 2002 projects, any new SPLOST elections, and any new bond issues that may be approved cannot be removed from the assessment of the need at this time. As previously mentioned, the ever-changing conditions make the assessing of construction need very fluid. That is an inherent part of the process.

Cost Data in Local Facility Plans: The end date of each local facility plan varies depending on the beginning and end date of the five year planning cycle. The LFP end dates are as follows:

- ∑ 3 plans have been extended past June 30, 2000,
- ∑ 31 plans will expire June 30, 2001,
- ∑ 52 plans will expire June 30, 2002,
- ∑ 49 plans will expire June 30, 2003, and
- ∑ 45 plans will expire June 30, 2004.

For plans that expire in 2004, growth data has been factored into the facilities plan and can be identified in terms of the need for classroom additions or new schools. The projections for these systems are much more accurate than the plans with an early end date, especially in terms of the cost data since DOE updates the reimbursement rate per square foot periodically. For example, plans completed this year will use $49 per square foot for classroom additions, but those completed last year used $48 per square foot. In estimating costs it takes time to update all of the past plans since there is no centralized computer database. The data is in different versions of software and most updates are done on paper copies of the LFPs making the paper versions more reliable than the electronic versions.

Lack of an Electronic Database: A serious limitation in estimating current and future needs and the accuracy of costs associated with those needs is the manner in which the data is collected in the development of the180 local facilities plans. The plans developed four years ago were by hand using calculators and typed on a regular typewriter or in a word processing program. Then for the next two years plans were developed in EXCEL spreadsheets. During the last school year the local facility plans were developed in a beta version of an ACCESS database that is under development. The various frameworks used prevent sophisticated mining for usable data. All the data used in developing this issue paper have been compiled and analyzed by hand, and may therefore be subject to a higher degree of error than data pulled from a formalized database. If the data were collected and stored in standardized categories and in its rawest form, various scenarios could be run and the impact of changes could be better assessed.

Because of the data limitations, only eligible state costs and amounts are used to assess the impact of HB 1187. Projections out to the year 2004 are subjective because of the LFP end dates vary and data formats vary.

Limitations based on assumptions made in calculating the number and cost of Instructional Units for HB 1187 estimates

HB 1187 reduced the teacher/pupil ratios in all grade levels. These reductions in teacher/pupil ratios will require construction of additional classrooms at all grade levels. The final limitation in projecting the impact of HB 1187 is determining how many additional instructional units will be additions to existing facilities and how many will be part of new

schools. Full implementation of the reduction of pupil/teacher ratios is scheduled for 2004. Since the planning, funding, and construction of schools takes time, a new instructional unit allocation chart has been developed and approved by the State Board of Education to reflect the class size changes required by HB 1187. This new instructional unit allocation chart was used in completing the annual update of each local facilities plan for the next round of funding, the FY 2002 calculation of entitlement. Table 4 shows some of the main changes in teacher/pupil ratios.

Table 4
Changes in Class Size: Number of Students per Teacher*
IUs for Academic Areas Only

	Pre HB 1187	Post HB 1187
Kindergarten	22 Students	15 Students
Grades 1-3	26 Students	17 Students
Grades 4-5	26 Students	23 Students
Grades 6-8	26 Students	20 Students with exploratory classes
	26 Students	23 students without exploratory classes
Grades 9-12	26 Students	23 Students
ESOL	None	7 Students
Gifted	None	12 Students
Remedial	None	15 Students

*HB 1187 also made changes to the teacher/pupil ratio for labs, special education and other programs.

Estimating the ***number of IU's*** needed due to the reduction in class size is a fairly straightforward procedure. However, assessing the ***cost per IU*** is more difficult. Using the "Proposed Organization" page in the Local Facilities Plan, the number of IU's may be estimated by taking the number of IU's available based on the FTEs in the school and then applying the new IUs earned from the IU Allocation chart. This allows a determination of the new number of IU's earned for that same number of FTEs. The impact is the difference. For the purposes of this paper, staff has done a preliminary estimate of the number of new instructional units needed to fully meet the classroom needs required under HB 1187. The categorization of IUs is an estimate using the best data available to the state until each local system has assessed its needs out to 2004 and determined how many IUs will be additions and how many will be new construction.

In deciding how to allocate the additional IUs, a local system may have little choice regarding the decision to build a new school rather than constructing an addition to the existing school. Not all instructional units can be built as additions. Some of the reasons include:

- Population growth is not equal
- Existing school site may be limited
- Systems may need some degree of reorganization
- Existing school building(s) may be obsolete
- Schools may exceed the system's acceptable size

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Accurate cost projections can only be done once units are categorized as new school units or new addition units by organization level. Since costs are significantly different, the number of new school units and additions, as well as school organization (K-5 versus K-3, 4-6), must be known to calculate an accurate total costs.
Another limitation in assessing the need is determining what an appropriate state reimbursement rate (or allowable cost) should be for IUs built as additions and new construction. IUs built as part of a new school could cost more than twice the cost of adding IUs at several schools. The individual unit cost calculation for a classroom added to an existing school does not include required support spaces such as media centers, cafeteria, kitchen, administration, large specialized units such as music, art, and physical education nor usually rest rooms. Not only are more square feet required, the cost per square foot for these spaces is most often more expensive. Table 5 shows one estimate of the cost difference between additions and new construction.

Table 5
Preliminary Estimate of State Eligible Costs for One IU Based on Current Program

	New Schools	Additions
Elementary School	$97,900	$53,030
Middle School	$127,350	$46,666
High School	$166,850	$42,425

CURRENT CONDITIONS: BEFORE HB 1187

There are no two systems with exactly the same facilities construction needs, just as there are no two systems with exactly the same ability to obtain the funds needed to meet their needs. However, the level of state funding per project is predictable and similar for all systems.

A strength incorporated within the local facility planning process is that fixed state square footage limits and allowable cost per square foot are used for developing the estimates for the construction need that earns state entitlement. That is, the state provides the same amount of funds per square foot to meet the construction need in one system as is does in another system. One of the major purposes of developing the plan is to provide equitable access to state construction funds based upon individual local system need.

The funding rate per square foot for elementary schools is $49 per square foot, $51 for middle schools, and $53 for high schools. All classroom additions are calculated at $49 per square foot. Laboratories, media centers, gymnasiums, restrooms, kitchens, cafeterias are all set at different costs. Although this rate per square foot is adjusted on an annual basis, it is calculated to reflect the minimum basic facility needs required in a building to provide for adequate education activities.[10]

[10] A complete list of allowable costs can be found at http://www.doe.k12.ga.us/facilities/constructioncosts.pdf

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The state sets minimum square footage for certain eligible space. The state minimum required square footage for instructional units (classrooms) is as follows.

- ∑ Grades K to 3 750 sq ft
- ∑ Grades 4 to 8 660 sq ft
- ∑ Grades 9 to 12 600 sq ft

A complete list of the eligible items can be found at the following Internet address: http://www.doe.k12.ga.us/facilities/squareft.pdf.

All systems spend more than the minimum state amount authorized per square foot because the state Capital Outlay program does not cover many components of construction. As mentioned previously in this paper, State Capital Outlay funds are not provided for the facilities such as alternative schools, and psycho-education centers or facilities used in extra-curricular activities and for administration and support services. In addition, the acquisitions of property for school sites, site improvements, bringing utilities to the sites, and furniture and equipment are not included in the state capital outlay program. The state capital outlay law does allow reimbursement on the purchase of furniture and equipment if any funds are not needed for reimbursement for construction purposes. However, in the last seven years only one system was able to credit some state capital outlay money to furniture reimbursement.

At the end of last year, the estimated eligible and unfunded need was $1,008,401,221. This calculation was the total state need with the advance-funded projects removed. Then, as the law requires, each plan was updated by removing all state funded projects and local projects that had been completed. In addition the FTE projections were corrected to include the actual student counts from school year 1999-2000. In analyzing the **construction needs before HB 1187** the amount for the **estimated eligible and unfunded need is $900,541,720 based on the cost estimates reported in the LFPs. This estimate may be an underestimate because cost estimates may be up to four years old because the LFP end dates vary.** This includes the eligible costs for construction of new schools, additions to existing schools, renovations, and for program modifications. Costs are not included in the unfunded need for roofs and heating, ventilation, and air conditioning (HVAC). In other words, the unfunded need represents the eligible costs for all projects in the local facilities plan needed to provide safe and adequate facilities for the projected number of students. It should be of interest to note, roofs and HVAC may be included in an application for funding even though the system is not earning entitlement. Also, HB 1187 allows a second round of renovations and no provisions have been made to include those costs in the eligible unfunded need.

Before HB 1187, 92 systems (out of 180) had some degree of need for elementary school instructional units, 66 systems had some degree of need for middle school instructional units, and 51 systems had some degree of need for high school instructional units. Table 6 shows, the total needs for instructional units (IU) by school type prior to HB 1187.

Table 6 Needs Before HB 1187		
	Number of Systems With a Need Out of 180	Total Number of Instructional Units
Elementary School	92	4,672
Middle School	66	2,026
High School	51	1,024
TOTAL		**7,722**

ASSESSING THE NEED AFTER HB 1187

The major impact on construction needs in Georgia resulting from HB 1187 will be for new construction in the form of new schools and additions because of the reduction in teacher/pupil ratios. In recognition of the need for additional instructional units, in October 2000, Governor Barnes announced that he will propose $468 million be allocated to pay for the impact of HB 1187. This level of one-time funding will make a significant impact on the facility needs in the state. As the legislative session nears, data based on local input and circumstances will help refine how funds for the impact of HB 1187 are allocated. Each individual plan need further review to determine the appropriate split between classroom units that are additions and those that should be grouped and built as new schools. Until this analysis is complete, no accurate cost assessment can be made. To assist the Governor and the Governor's Education Reform Commission in understanding the scope of the need, staff prepared an estimate using the data available based on the policies and criteria of the current capital needs assessment formula.

While every effort has been made to develop the best estimates possible, it is essential to recognize the limitations of the source data and the procedures used to project the need These limitations may result in an under or over estimation of the actual need. Table 7 shows the instructional units needed projected to 2004. The table shows both the need before HB 1187 and the additional units estimated to house the reduced class sizes required by HB 1187 (see Appendix D for the process of calculating the impact of HB 1187).

Table 7 Estimated Need Projected to 2004							
	Before HB 1187			Impact of HB 1187			Total
	Additions	New	Total	Additions	New	Total	Need
Elementary Schools	1,522	3,150	**4,672**	1,735	351	**2,089**	**6,761**
Middle Schools	529	1,497	**2,026**	2,226	546	**2,772**	**4,798**
High Schools	222	802	**1,024**	1,469	353	**1,822**	**2,846**
TOTALS			**7,722**			**6,683**	**14,405**

In Table 7 the total need "After HB 1187" represents the number of instructional units to reduce the teacher/pupil ratios as required in HB 1187 and to provide adequate facilities for the student population projected to FY 2004 for all school systems. The number of instructional units to meet these was estimated by DOE staff based on the data available.

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Renovation and Modification

As part of the ongoing Capital Outlay Program, local systems plan for renovation and modification projects. DOE defines a renovation as cosmetic improvements to a space without changing the intent of the space. A good example of a renovation is re-painting a room, replacing the carpets or tiles, and updating the lighting fixtures. DOE defines a modification as changing the purpose of the space. A modification could be changing a room from an old industrial arts space to a new technology education space. DOE also defines new roofs and HVAC systems as modifications. While school systems are eligible to request funds to replace roofs and HVAC systems when an application is submitted for funding, the costs for these activities are not included in assessing the pre-HB 1187 costs eligible for earning entitlement annually. To provide a more realistic estimate of the actual funding needs facing school systems, the estimated cost to replace roofs and HVAC systems may need to be included.

While most school system's LFP includes detailed architectural cost estimates for needed replacement of the roofs and HVAC systems, the work may have to be done two or three years sooner than planned. Typically, local funds are used to replace a roof when the roof begins to leak and can no longer be repaired, or a HVAC system fails to work properly. In addition, many school systems replace roofs and HVAC systems as a part of their routine maintenance program. Although the data included in each facilities plan to replace the roof or HVAC system for a specific building at a specific school may not be totally reliable, this data can be used as a reliable indicator for predicting the statewide-expected cost of replacing roofs and HVAC systems for existing schools in FY 2004. Although an estimate this may need to be done.

Variations among systems

As noted earlier, there are no two systems with exactly the same facilities construction needs, just as there are no two systems with the exactly the same ability to obtain the funds needed to meet their needs. However, it may prove helpful to examine in some detail the needs of various sized systems relative to changes in enrollment.

Case Studies

Atlanta City Schools and Gwinnett County

Atlanta City Schools. The large school systems located in metro Atlanta outside the urban core all appear to be increasing in student enrollment. Conversely, Atlanta City has an enrollment of approximately 58,000 and is projected to lose fewer than 500 students a year. While the City of Atlanta has not grown over the last few years, the needs for renovation, modification and replacing older buildings has required a substantial expenditure. During the last five or six years, Atlanta City has been in the process of expending almost $35 million in state capital outlay funds, $95 million in bonds, and $470 million in SPLOST revenue. The challenges faced in the inner city are much different than in the suburbs. Most of the existing schools are on very small sites in highly populated

neighborhoods. Many of the Atlanta schools were constructed as neighborhood schools where students were expected to walk to school. Therefore, originally the size of the school site was smaller. The additional program requirements over the years have required many additions, which may or may not be the same from neighborhood to neighborhood. The need for improved technology has also presented infrastructure changes.

Changes in the composition of individual neighborhoods certainly impact existing schools. For example, as the composition of a community changes from young married couples with children, to a stable community of older or retired citizens the needs placed upon local schools are much different. In situations where new sites must be acquired, the costs, combined with environmental issues, have been most formidable. With the requirements existing for construction within the area Atlanta serves, the costs for new construction, renovation activities, and meeting new infrastructure needs have been somewhat higher.

Gwinnett County. In Gwinnett County, with a projected growth of almost 5,500 students for the next five years, growth has been the most challenging part of facilities planning. Gwinnett County's enrollment for state capital outlay purposes is about 103,000. Gwinnett has faced the challenge annually for the last few years by building new schools for an enrollment greater than the base size used to calculate operational expenditures for the average systems in the state. Gwinnett has been very successful in constructing new schools for a comparably low dollar cost per square foot. Gwinnett learned early on that the most economical design is the square box with minimal volume. That combined with economy of scale over the small neighborhood school has produced an economical building system.

The Atlanta City Local Facilities Plan based on state funding rules and guidelines has few remaining capital outlay needs. Atlanta City needs funds for more maintenance, renovations and modifications. On the other hand, Gwinnett County with a 1994 bond issue of $190 million and a SPLOST producing over $545 million still has the largest need in the state. Again, Atlanta City has accessed almost $80 million since the advent of the present Capital Outlay Program while Gwinnett has received over $151 million. Atlanta City's funds have primarily been used to replace aging facilities, while Gwinnett County has spent most of their funds to build new facilities.

Coweta and Forsyth School Systems. Another contrast would be exhibited by the differences today between Coweta County and Forsyth County. Both are growing systems, although Forsyth's growth is estimated to be almost twice the rate of Coweta, their student population is almost the same. Coweta County's local plan updated after HB 1187 indicates the greatest need for construction to be in their middle and high schools. Forsyth County, on the other hand, has no need in the high schools, but a great need in elementary and middle schools. Simply, each system has made individual decisions based upon the changing times to direct available resources toward different targets.

Dublin and Gainesville School Systems. Two city systems that were about the same size in 1998 are Dublin and Gainesville. In FY 2002 planning projections, Dublin is losing over

200 students per year and Gainesville is gaining almost 158 students per year. When updated to include the new needs of HB 1187, Dublin has no needs while Gainesville needs almost a full base size elementary school, plus some in middle and some in high school. Both passed SPLOST elections and have had bond issues in the past. Dublin has built elementary schools and as enrollment has declined has accumulated unused elementary spaces that are able to absorb the reduced class size. Gainesville at one time had all students fully housed, but new growth coupled with the reduction in class size now creates a new need.

An examination of smaller systems would show another face to the diversity in construction needs through the state of Georgia. Crawford County's present enrollment is 2,073 for 1999-2000. The growth is a modest projected 45 students a year for the next 5 years. Crawford County has passed a SPLOST, passed a bond issue, accessed all state capital outlay funds available to them including a Low-Wealth application and still have needs after HB 1187 requiring almost a full elementary school. Rabun County with a present enrollment of 2,054 has passed a bond issue, a SPLOST and accessed all state capital outlay funds available to them. The Rabun County growth rate is almost exactly the same at 43. Their needs are very modest. Here the difference primarily resulted from the point from which the two systems began and the differences in local access to property tax and sales tax wealth per child.

There are many smaller systems that will have no needs after HB 1187 because these systems used local bond or SPLOST revenue to build for future growth. For example, Jones County constructed a new elementary school with local funds and reorganized their elementary schools from a K-5 organizational pattern to utilize the existing elementary school for grades 3-5 and the new school for grades PK-2. When the new school was completed and the PK-2 students were moved to the new school, the total number of classrooms available in both schools exceeds the number of units needed to reduce the teacher/pupil ratios to the levels required in HB 1187. Therefore, the excess capacity that Jones County had planned and paid for with local funds to ensure adequate facilities would be available for future growth will now be used for the purpose of reducing teacher/pupil ratios.

If Jones County continues to grow, additional funds will be needed from some funding source to provide the classrooms needed for future growth. The local decision to use local tax dollars to house pre-kindergarten now replaces what would have become the state need required by the full implementation of HB 1187. The same circumstances exist in other counties. One option for these counties would be to eliminate the pre-kindergarten classes and use them for regular education. Many local systems in rural Georgia provide Pre-K because of a lack of private providers.

Many school systems have already, with state capital outlay assistance, constructed the necessary facilities to meet the identified needs, and then have begun to lose enrollment. So, the impact of HB 1187 on these systems is very limited or non-existent. It was interesting to note that systems without elementary needs before HB 1187 numbered 88 and after HB 1187 numbered 78. Further analysis of the data will probably show the

greatest impact of HB 1187 was in those systems with large needs before HB 1187. The bottom line is that each county is different with regard to its construction needs as well as its ability to accumulate local funds to meet those needs.

FINDINGS

1. An accurate assessment of the existing facilities in the 180 school systems serving Georgia's K-12 students is essential. This assessment should include a current inventory of every classroom and the instructional program it supports, and data regarding the age of each building by school compiled by system.
    a. Data concerning the number and condition of temporary facilities also ought to be included in the inventory data but is not available.
    b. In addition, the condition of each building, including realistic cost estimates for needed improvements should be collected and kept updated to reflect current needs.
    c. Finally, population projections and cost estimates must be developed to more accurately estimate future needs, school by school, and system by system. This data can be self-reported, or collected with assistance from a state agency.

2. Currently, assessment data is entered on spreadsheets and represents a revolving collection of information. While the data is current at the time of collection, it soon becomes outdated. It is apparent the completion of the development of a database would expedite accuracy, allow faster updating, and permit data mining to provide more detailed and accurate reports.

3. The data show the total eligible, unfunded construction needs before HB 1187 was enacted into law is $1,008,401,221, excluding costs for replacement of roofs and HVAC systems. When adjusted for projects that will be completed within the year, the construction needs decrease to $900 million.

4. The total ***estimated*** eligible construction need expressed as a number of instructional units are shown in Table 8 below. Cost per IU varies because an instructional unit in an elementary school, for example, may be an art room, a music room, a gym, a first grade classroom or a computer laboratory.

Table 8
Preliminarily Estimate of Need Projected to 2004

	Before HB 1187			Impact of HB 1187			Total Need
	Additions	New	Total	Additions	New	Total	
Elementary Schools	1,522	3,150	**4,672**	1,735	351	**2,089**	**6,761**
Middle Schools	529	1,497	**2,026**	2,226	546	**2,772**	**4,798**
High Schools	222	802	**1,024**	1,469	353	**1,822**	**2,846**
TOTALS			**7,722**			**6,683**	**14,405**

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5. To construct the estimated additional 6,683 instructional units needed due to reduction in teacher/pupil ratios may cost approximately $468 million.

6. There are a number of limitations in the compilation of the final estimates.
    a. Final estimates are based upon only those construction activities that are eligible for state participation,
    b. The cost estimates are based upon the state formula cost calculations for FY 2002,
    c. The total eligible unfunded costs include required local effort, and
    d. The LFP end dates vary so estimates were used to project needs to the year 2004.

7. It is essential to begin meeting with local systems on the accuracy of the HB 1187 impact numbers and how that impact can best be addressed locally.

APPENDIX A

LOCAL PUBLIC SCHOOL SYSTEMS IN GEORGIA

Department of Education
School Systems
Source: Georgia Department of Education Facilities Services
Map prepared by: Georgia GIS Data Clearinghouse

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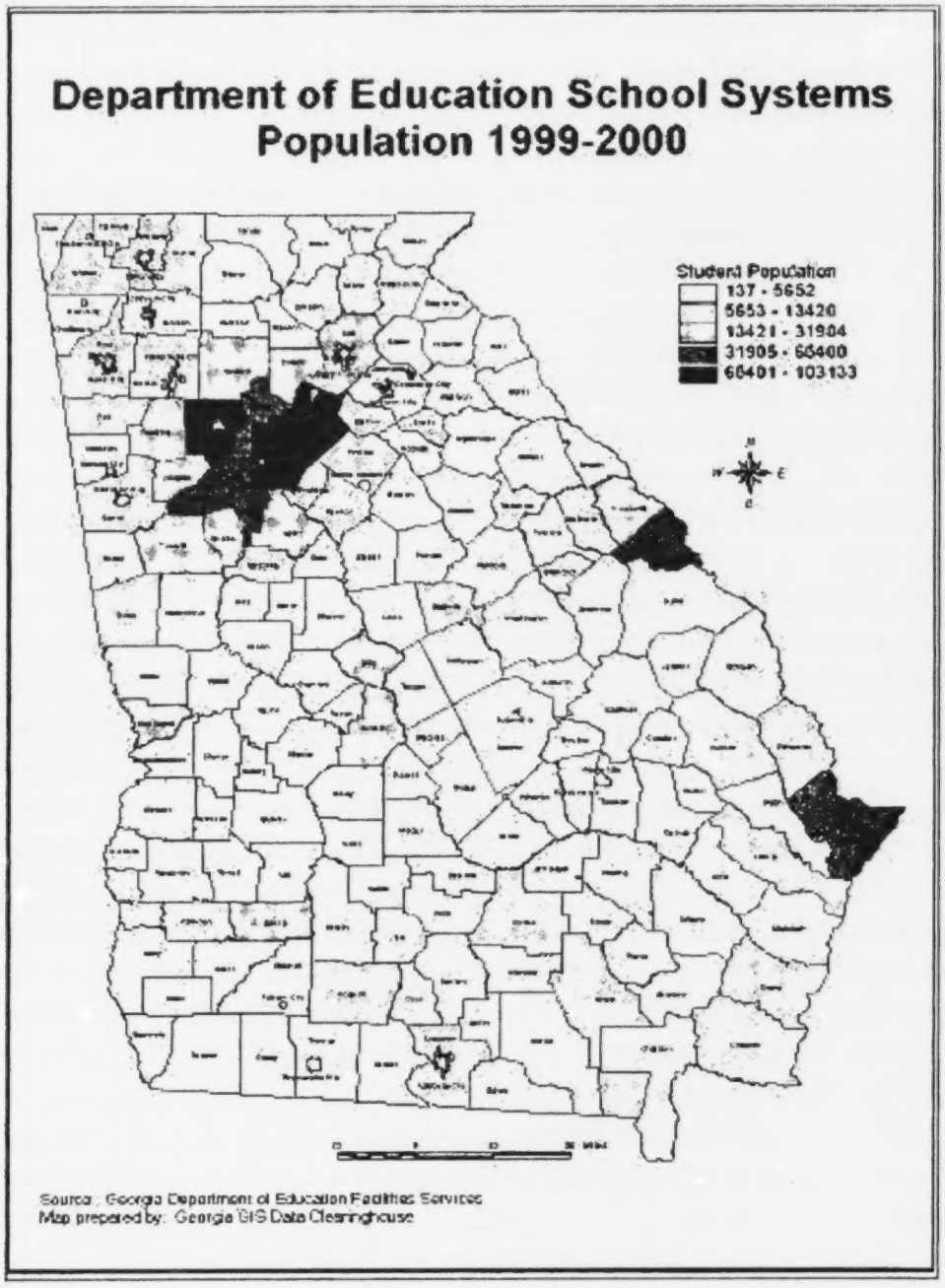
APPENDIX B

GROWTH TREND MAPS



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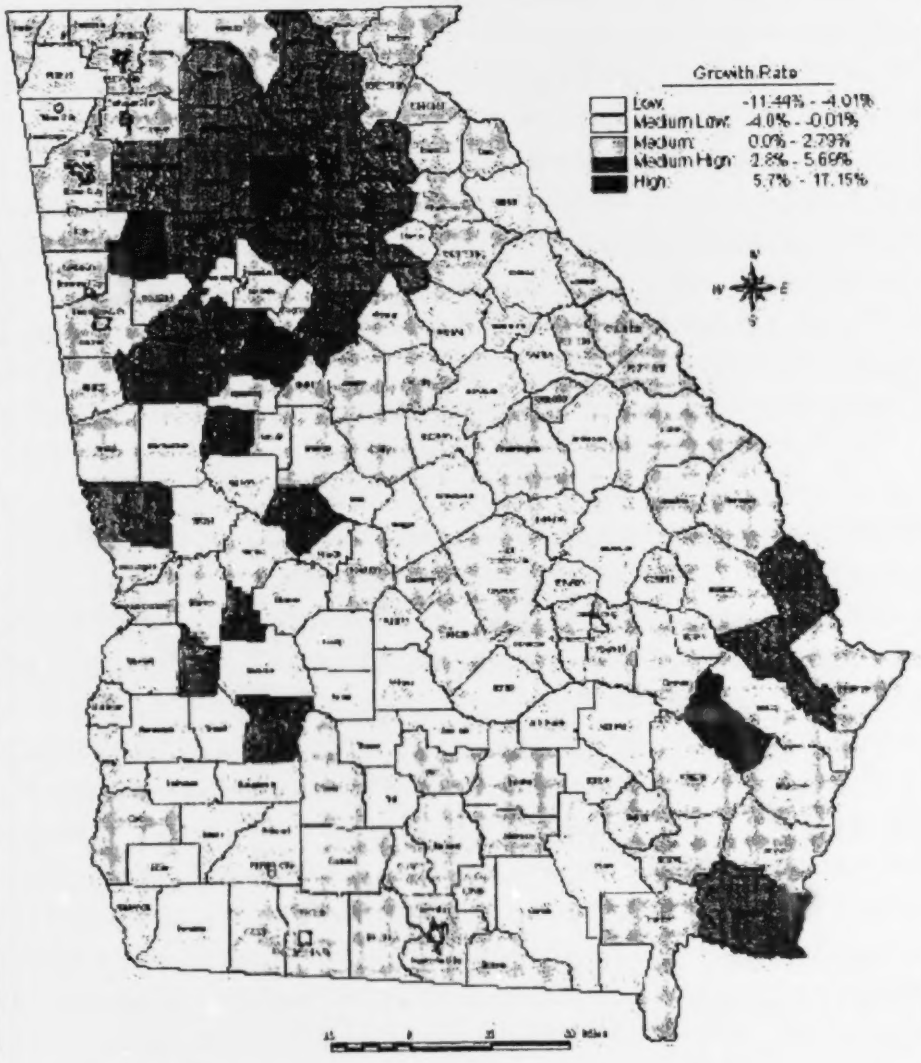
Department of Education School Systems Average Growth Rate Over Nine Years 1991-1999



Source: Georgia Department of Education Facilities Services
Map prepared by: Georgia GIS Data Clearinghouse

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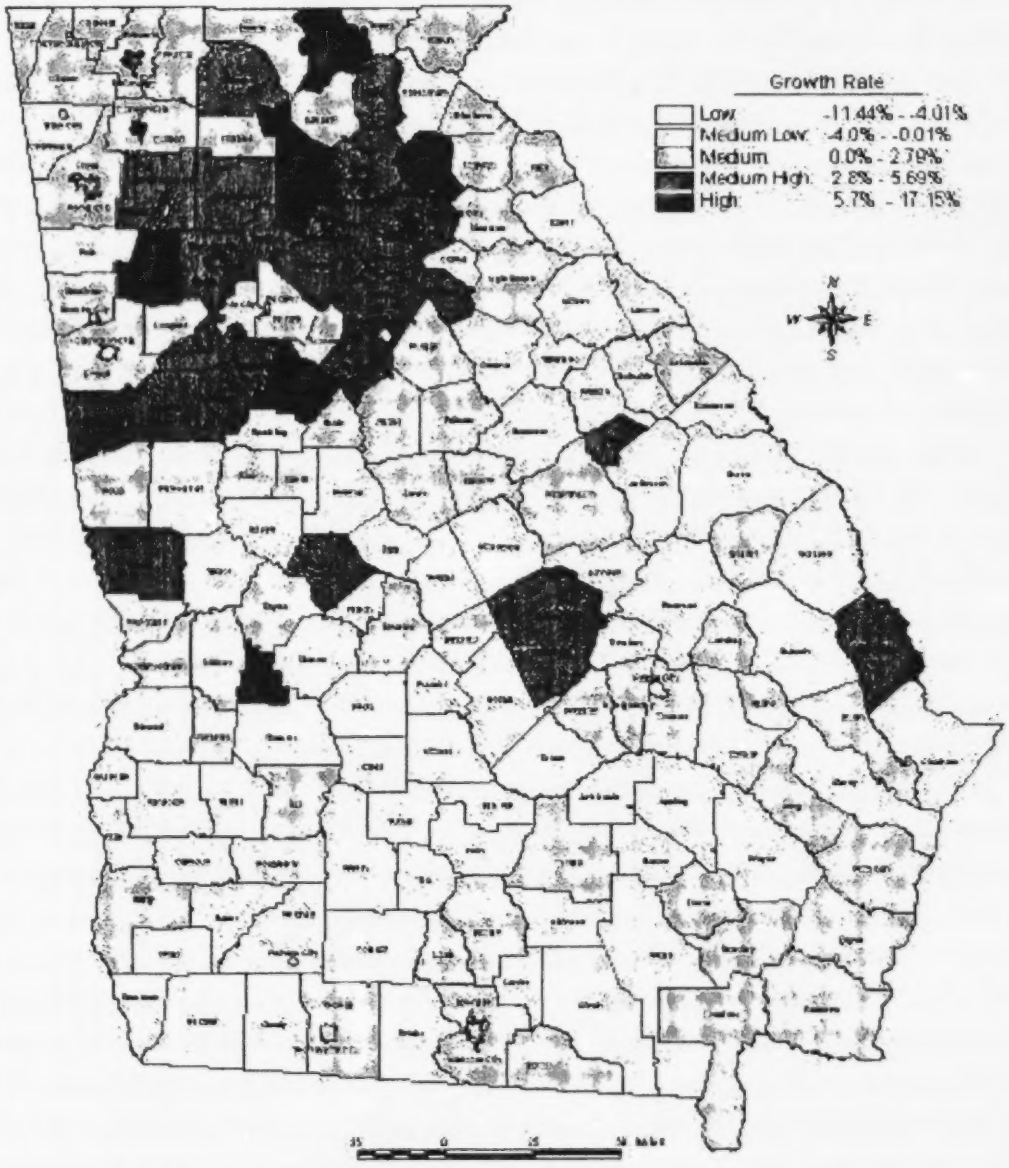
Department of Education School Systems Average Growth Rate Over Four Years 1996-1999



Source: Georgia Department of Education Facilities Services
Map prepared by: Georgia GIS Data Clearinghouse

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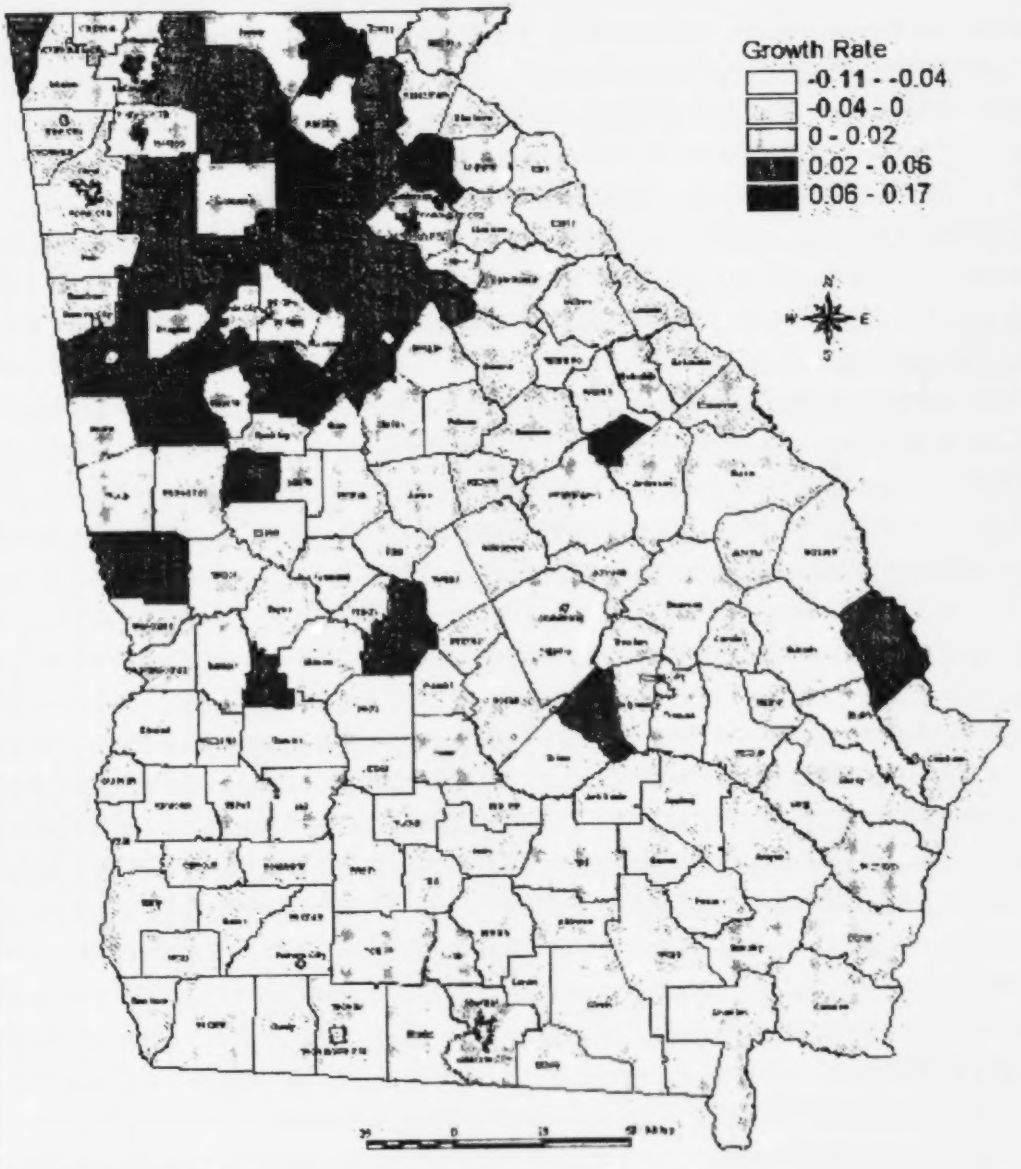
Department of Education School Systems Growth Rate 1998-1999



Source: Georgia Department of Education Facilities Services
Map prepared by: Georgia GIS Data Clearinghouse

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Data Set for Growth Rate Charts

SYSTEM NAME	1991-1999 Ave. Growth Rate	1996-1999 Growth Rate	1998-1999 Growth Rate	SYSTEM NAME	1991-1999 Ave. Growth Rate	1996-1999 Growth Rate	1998-1999 Growth Rate
APPLING COUNTY	-1.03%	-1.27%	-3.09%	CRISP COUNTY	-0.76%	-0.90%	-3.22%
ATKINSON COUNTY	1.03%	-0.41%	-2.21%	DADE COUNTY	1.68%	1.92%	2.61%
ATLANTA CITY	-0.30%	-0.96%	-1.64%	DALTON CITY	3.01%	3.24%	4.38%
BACON COUNTY	-1.94%	-2.67%	-2.55%	DAWSON COUNTY	4.10%	7.28%	6.65%
BAKER COUNTY	-1.57%	-2.01%	-4.68%	DECATUR CITY	2.36%	-2.22%	0.35%
BALDWIN COUNTY	-0.05%	0.09%	-0.21%	DECATUR COUNTY	-0.52%	-0.58%	-0.89%
BANKS COUNTY	4.44%	5.75%	6.88%	DEKALB COUNTY	2.38%	1.61%	1.74%
BARROW COUNTY	3.85%	4.31%	4.66%	DODGE COUNTY	0.28%	0.00%	0.06%
BARTOW COUNTY	4.26%	4.27%	4.29%	DOOLY COUNTY	-0.43%	-1.12%	-0.99%
BEN HILL COUNTY	-0.88%	-1.38%	-1.43%	DOUGHERTY COUNTY	-1.26%	-1.51%	-0.61%
BERRIEN COUNTY	1.28%	1.55%	-0.62%	DOUGLAS COUNTY	2.03%	1.81%	1.48%
BIBB COUNTY	-0.20%	-0.24%	0.11%	DUBLIN CITY	-2.06%	-5.72%	-5.56%
BLECKLEY COUNTY	1.30%	1.12%	0.04%	EARLY COUNTY	0.28%	0.10%	-1.92%
BRANTLEY COUNTY	2.61%	2.54%	1.76%	ECHOLS COUNTY	1.77%	1.73%	0.00%
BREMEN CITY	1.03%	1.56%	0.00%	EFFINGHAM COUNTY	3.79%	3.13%	2.98%
BROOKS COUNTY	0.19%	-0.10%	0.60%	ELBERT COUNTY	-0.13%	-0.97%	-2.24%
BRYAN COUNTY	3.02%	0.42%	1.36%	EMANUEL COUNTY	-0.61%	-2.09%	-3.39%
BUFORD CITY	3.98%	4.97%	7.26%	EVANS COUNTY	1.05%	2.40%	0.42%
BULLOCH COUNTY	1.59%	-0.08%	0.25%	FANNIN COUNTY	0.91%	0.54%	1.12%
BURKE COUNTY	0.89%	-0.75%	-0.63%	FAYETTE COUNTY	4.13%	3.24%	1.84%
BUTTS COUNTY	1.49%	1.54%	0.57%	FLOYD COUNTY	1.25%	0.30%	0.15%
CALHOUN CITY	2.00%	3.64%	3.44%	FORSYTH COUNTY	8.86%	10.52%	10.05%
CALHOUN COUNTY	-5.85%	-4.64%	-2.68%	FRANKLIN COUNTY	1.72%	1.37%	0.75%
CAMDEN COUNTY	4.52%	1.65%	-0.17%	FULTON COUNTY	5.25%	4.14%	2.90%
CANDLER COUNTY	1.80%	1.63%	-1.31%	GAINESVILLE CITY	3.26%	4.62%	8.19%
CARROLL COUNTY	1.02%	1.99%	3.48%	GILMER COUNTY	3.18%	3.05%	4.32%
CARROLLTON CITY	1.92%	-0.08%	0.20%	GLASCOCK COUNTY	1.56%	3.04%	7.43%
CARTERSVILLE CITY	2.18%	2.75%	2.63%	GLYNN COUNTY	0.86%	0.44%	0.46%
CATOOSA COUNTY	2.20%	2.42%	2.30%	GORDON COUNTY	2.18%	1.76%	1.49%
CHARLTON COUNTY	0.87%	0.27%	-1.42%	GRADY COUNTY	0.52%	-1.19%	-2.42%
CHATHAM COUNTY	0.26%	-0.43%	-1.67%	GREENE COUNTY	-2.16%	-1.47%	-2.84%
CHATTAHOOCHEE COUNTY	2.66%	0.95%	-1.28%	GWINNETT COUNTY	5.34%	5.56%	5.81%
CHATTOOGA COUNTY	-0.73%	-1.45%	-1.27%	HABERSHAM COUNTY	1.08%	-0.05%	-0.60%
CHEROKEE COUNTY	4.79%	4.02%	2.28%	HALL COUNTY	3.93%	3.34%	4.11%
CHICKAMAUGA CITY	0.94%	-0.79%	-1.34%	HANCOCK COUNTY	-1.03%	-0.51%	-0.97%
CLARKE COUNTY	-0.21%	-0.31%	0.96%	HARALSON COUNTY	2.61%	2.17%	0.49%
CLAY COUNTY	-1.24%	-0.20%	-6.78%	HARRIS COUNTY	4.51%	4.02%	3.68%
CLAYTON COUNTY	2.97%	2.92%	3.09%	HART COUNTY	0.58%	0.11%	-0.50%
CLINCH COUNTY	-0.54%	-1.21%	-2.18%	HEARD COUNTY	1.28%	3.16%	2.34%
COBB COUNTY	3.33%	3.09%	2.90%	HENRY COUNTY	8.11%	8.49%	8.02%
COFFEE COUNTY	1.52%	0.92%	0.60%	HOUSTON COUNTY	2.75%	2.54%	2.63%
COLQUITT COUNTY	0.70%	-0.10%	0.97%	IRWIN COUNTY	0.68%	-0.77%	-2.01%
COLUMBIA COUNTY	2.73%	1.36%	0.29%	JACKSON COUNTY	3.00%	3.18%	1.90%
COMMERCE CITY	1.54%	4.03%	4.26%	JASPER COUNTY	1.75%	2.43%	1.82%
COOK COUNTY	1.48%	2.25%	1.11%	JEFF DAVIS COUNTY	-0.04%	-0.80%	-2.04%
COWETA COUNTY	4.96%	4.08%	2.93%	JEFFERSON CITY	4.84%	6.30%	10.43%
CRAWFORD COUNTY	3.53%	3.12%	1.02%	JEFFERSON COUNTY	-0.08%	-1.11%	-3.20%

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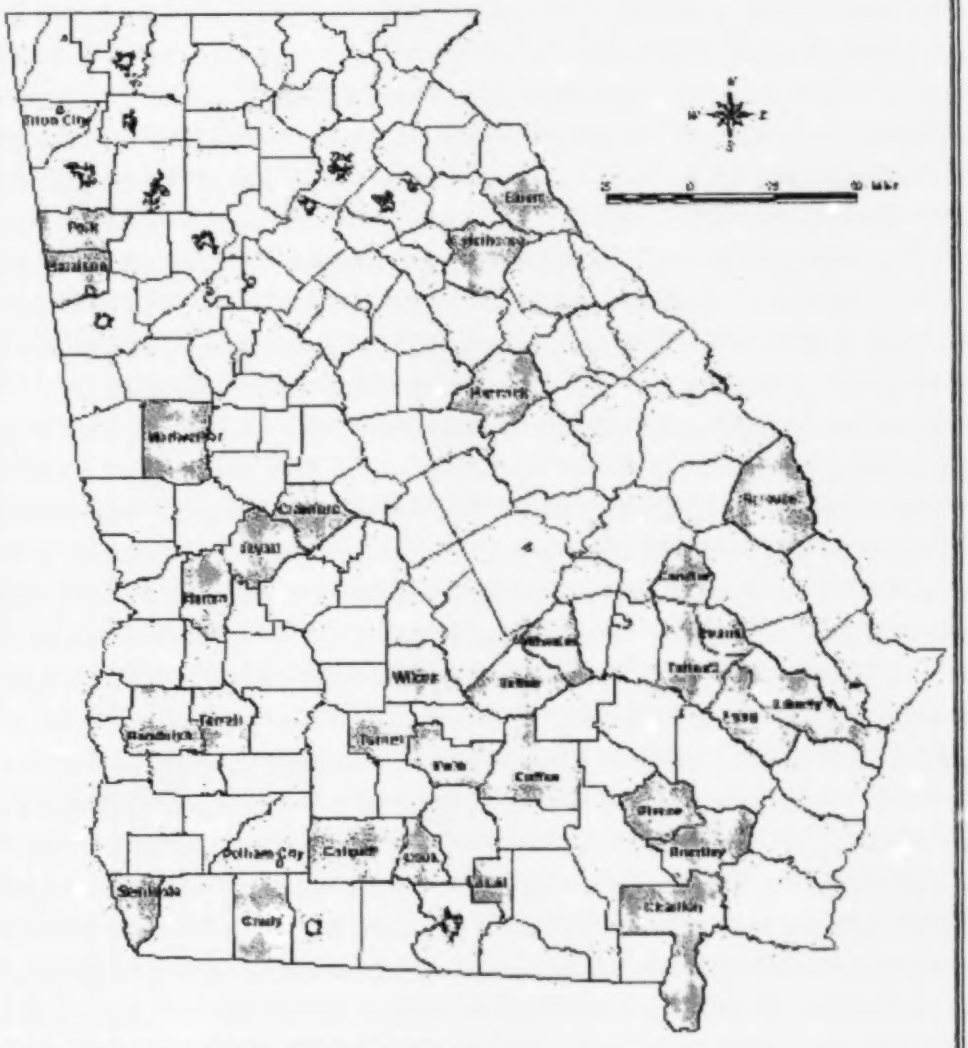
SYSTEM NAME	1991-1999 Ave. Growth Rate	1996-1999 Growth Rate	1998-1999 Growth Rate
JENKINS COUNTY	0.08%	0.54%	-0.23%
JOHNSON COUNTY	-2.08%	-1.49%	-0.90%
JONES COUNTY	2.06%	1.62%	0.15%
LAMAR COUNTY	1.72%	0.55%	1.96%
LANIER COUNTY	0.03%	-1.92%	-0.63%
LAURENS COUNTY	2.28%	3.21%	2.00%
LEE COUNTY	3.10%	1.52%	0.62%
LIBERTY COUNTY	2.63%	-0.02%	-1.61%
LINCOLN COUNTY	0.37%	-0.50%	-2.31%
LONG COUNTY	7.29%	2.10%	2.32%
LOWNDES COUNTY	2.58%	2.40%	1.07%
LUMPKIN COUNTY	3.00%	2.73%	1.36%
MACON COUNTY	-1.37%	-2.21%	-3.26%
MADISON COUNTY	1.62%	0.90%	-0.16%
MARIETTA CITY	3.41%	4.12%	6.22%
MARION COUNTY	1.49%	0.67%	1.83%
MCDUFFIE COUNTY	0.27%	-0.24%	0.95%
MCINTOSH COUNTY	1.91%	1.78%	0.92%
MERIWETHER COUNTY	-0.93%	-1.14%	-0.67%
MILLER COUNTY	-0.78%	-1.23%	-0.81%
MITCHELL COUNTY	-1.41%	-1.79%	-4.05%
MONROE COUNTY	1.42%	-0.19%	-0.71%
MONTGOMERY COUNTY	0.80%	1.27%	-0.08%
MORGAN COUNTY	1.43%	2.11%	1.40%
MURRAY COUNTY	2.40%	2.20%	3.80%
MUSCOGEE COUNTY	0.35%	-0.57%	-0.95%
NEWTON COUNTY	3.38%	3.75%	2.74%
OCONEE COUNTY	4.85%	3.62%	3.77%
OGLETHORPE COUNTY	1.72%	1.51%	1.83%
PAULDING COUNTY	8.08%	7.59%	6.49%
PEACH COUNTY	-0.16%	-1.37%	-2.86%
PELHAM CITY	-0.91%	-0.97%	1.32%
PICKENS COUNTY	3.86%	2.57%	2.79%
PIERCE COUNTY	1.12%	0.10%	0.26%
PIKE COUNTY	3.36%	2.52%	4.09%
POLK COUNTY	0.53%	-0.19%	-0.45%
PULASKI COUNTY	-0.77%	-0.77%	-0.77%
PUTNAM COUNTY	1.38%	0.60%	-0.16%
QUITMAN COUNTY	1.24%	0.00%	-4.02%
RABUN COUNTY	1.55%	2.33%	1.38%
RANDOLPH COUNTY	-1.95%	-2.81%	-6.13%
RICHMOND COUNTY	0.44%	-0.64%	-0.48%
ROCKDALE COUNTY	2.03%	1.70%	1.67%
ROME CITY	1.29%	1.26%	1.37%
SCHLEY COUNTY	4.99%	9.42%	6.29%
SCREVEN COUNTY	0.44%	-0.16%	-1.01%
SEMINOLE COUNTY	-0.40%	-1.80%	-1.79%
SOCIAL CIRCLE CITY	2.93%	1.43%	0.00%
SPALDING COUNTY	0.03%	-0.24%	-0.21%
STEPHENS COUNTY	0.86%	0.78%	-1.41%
STEWART COUNTY	-1.44%	-1.09%	-5.85%
SUMTER COUNTY1	-0.35%	-0.88%	-1.06%
TALBOT COUNTY	-1.44%	-0.35%	-2.44%
TALIAFERRO COUNTY	-2.52%	-1.59%	-4.20%
TATTNALL COUNTY	0.20%	-1.16%	-1.70%
TAYLOR COUNTY	0.63%	0.14%	-0.93%
TELFAIR COUNTY	-2.54%	-5.16%	-6.20%
TERRELL COUNTY	-0.46%	-2.31%	1.84%
THOMAS COUNTY	1.49%	0.05%	0.45%
THOMASVILLE CITY	-1.16%	-2.78%	-2.50%
TIFT COUNTY	-0.36%	-0.87%	-1.12%
TOOMBS COUNTY	1.83%	1.04%	1.35%
TOWNS COUNTY	2.00%	1.94%	-1.85%
TREUTLEN COUNTY	-0.59%	-0.83%	-0.41%
TRION CITY	0.57%	0.19%	0.91%
TROUP COUNTY	0.21%	0.16%	1.71%
TURNER COUNTY	-0.41%	-0.60%	0.38%
TWIGGS COUNTY	-1.23%	-3.01%	-11.44%
UNION COUNTY	4.53%	7.60%	17.15%
UPSON COUNTY	-0.13%	-0.74%	-0.46%
VALDOSTA CITY	-0.71%	-1.80%	1.08%
VIDALIA CITY	-1.73%	-1.95%	-1.51%
WALKER COUNTY	-0.63%	0.02%	0.40%
WALTON COUNTY	3.87%	3.44%	3.11%
WARE COUNTY	-0.98%	-1.23%	-0.42%
WARREN COUNTY	-1.57%	-2.66%	-5.14%
WASHINGTON COUNTY	0.82%	0.64%	0.59%
WAYNE COUNTY	0.28%	-0.38%	-1.68%
WEBSTER COUNTY	3.64%	0.73%	-0.82%
WHEELER COUNTY	0.52%	1.78%	4.59%
WHITE COUNTY	3.67%	3.14%	4.22%
WHITFIELD COUNTY	1.69%	1.87%	2.18%
WILCOX COUNTY	-0.58%	-0.03%	2.03%
WILKES COUNTY	-1.40%	-1.86%	-0.79%
WILKINSON COUNTY	-2.11%	-2.19%	0.17%
WORTH COUNTY	0.45%	-1.93%	-3.47%

APPENDIX C
LOW WEALTH

Department of Education
Low Wealth School Systems



Source: Georgia Department of Education Facilities Services
Map prepared by: Georgia GIS Data Clearinghouse

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APPENDIX D

Calculating the Need Impact of HB 1187

Base Size School	FTE	IU's Earned
Elementary Schools	**450 FTE**	**30**
Middle Schools	**624 FTE**	**40**
High Schools	**970 FTE**	**51**

Calculations for Additions

Elementary Schools = 750 x 1.30 x $49 x 1.11* = $53,030.25
Middle Schools = 660 x 1.30 x $49 x 1.11* = $46,666.62
High Schools = 600 x 1.30 x $49 x 1.11* = $42,424.20

1 Elementary School IU estimated as additions = $53,030.25
1 Middle School IU estimated as additions = $46,666.62
1 High School IU estimated as additions = $42,424.20

* Includes 6% for architect fees and 5% for contingencies

Calculations for New Schools

Elementary Schools= 30 x 1800 sq. ft. x $49 x 1.11* = $2,937,060
Middle Schools = 40 x 2250 sq. ft. x $51 x 1.11* = $5,094,900
High Schools = 51 x 2850 sq. ft. x $53 x 1.11* = $8,550,941

1 Elementary School IU estimated for planning = $ 97,902
1 Middle School IU estimated for planning = $127,373
1 High School IU estimated for planning = $166,851

* Includes 6% for architect fees and 5% for contingencies

Estimated Needs to Implement HB 1187*
(Expressed As IU's)

	Elementary Schools	Middle Schools	High Schools	TOTALS
Additions	**1,738**	**2,226**	**1,469**	**5,433**
New Schools	**351**	**546**	**353**	**1,250**
TOTALS	**2,089**	**2,772**	**1,822**	**6,683**

Does not include previous unfunded construction needs

Estimated Needs to Implement HB 1187*
(Expressed As State Formula Costs)

	Elementary Schools	Middle Schools	High Schools	TOTALS
Additions	**$101,382,754**	**$124,666,000**	**$ 81,016,819**	**$307,055,573**
New Schools	**$ 34,167,798**	**$ 68,526,674**	**$ 59,186,098**	**$161,880,570**
TOTALS	**$135,550,552**	**$193,182.674**	**$140,202,917**	**$468,936,143**

Does not include previous UNFUNDED construction needs

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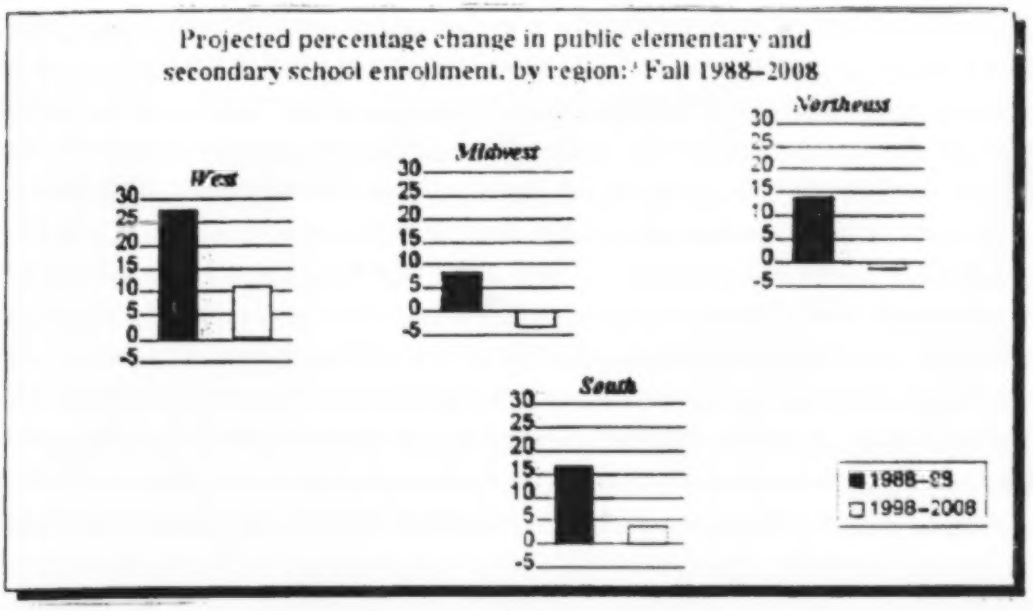
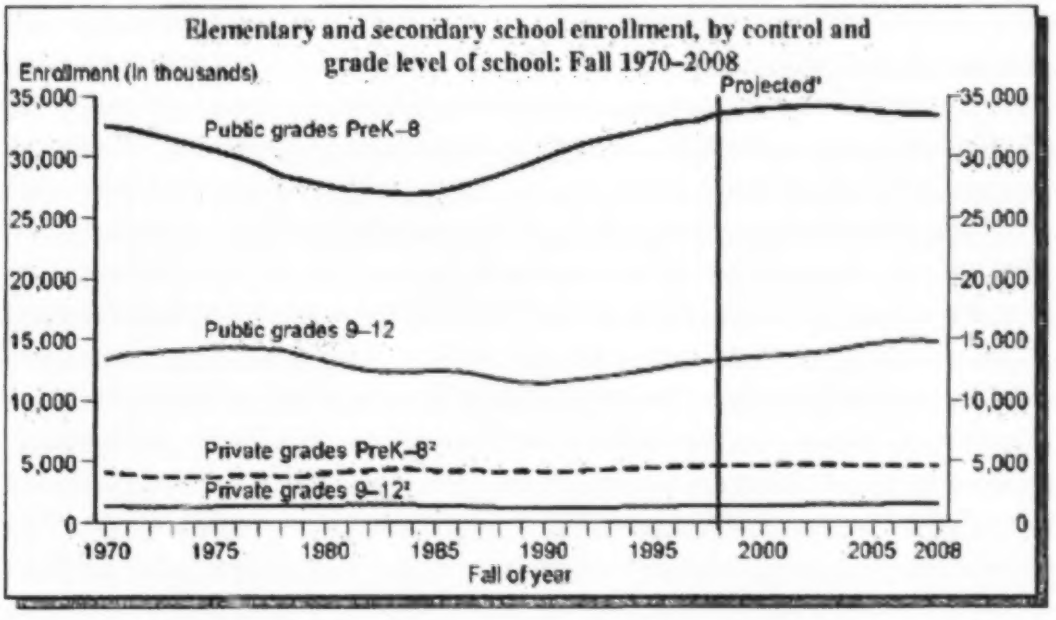
APPENDIX E

National Student Population Trends





SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998. http://nces.ed.gov/pubs99/condition99/indicator-45.html

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APPENDIX F

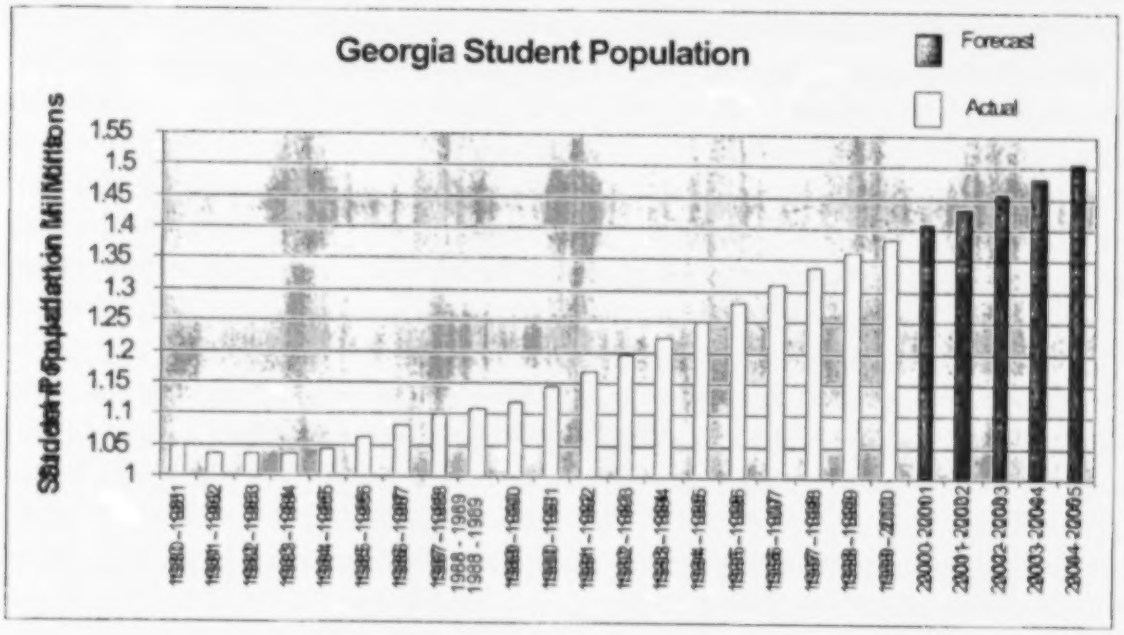
STUDENT POPULATION TRENDS: 1980 - 2005
STATE OF GEORGIA PUBLIC SCHOOLS

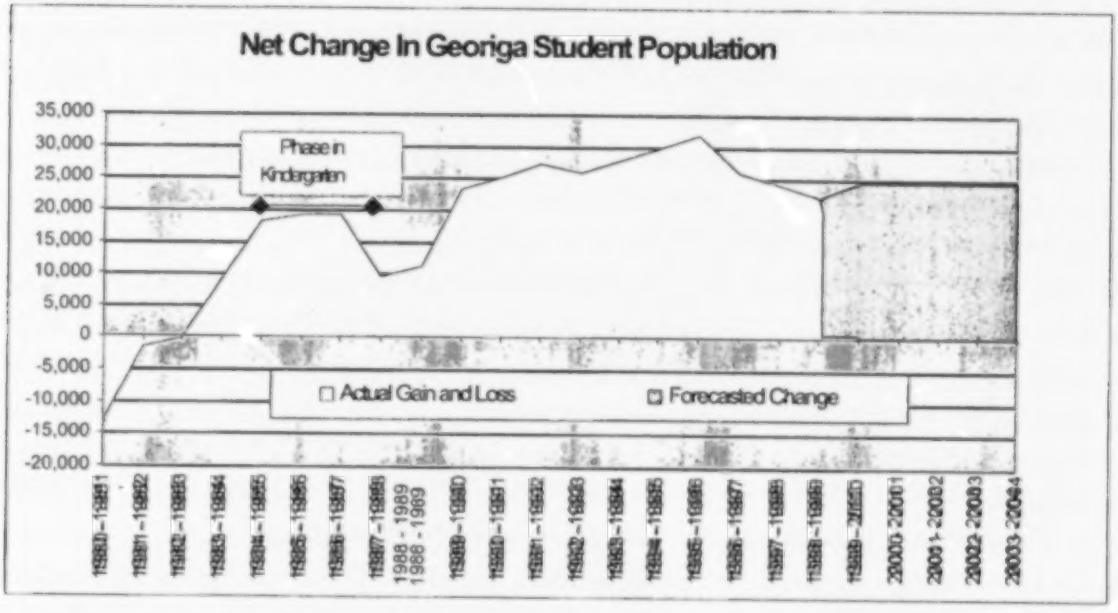
(STUDENT POPULATION AS REPORTED BY THE LOCAL SCHOOL SYSTEMS)

SCHOOL YEAR	*NUMBER OF STUDENTS*	*GAIN OR LOSS*	*RATE OF CHANGE*
1980 - 1981	1,049,476		
1981 - 1982	1,036,392	-13,084	-1.26%
1982 - 1983	1,034,956	-1,436	-0.14%
1983 - 1984	1,034,885	-71	-0.01%
1984 - 1985	1,043,815	8,930	0.86%
1985 - 1986	1,061,887	18,072	1.70%
1986 - 1987	1,080,974	19,087	1.77%
1987 - 1988	1,100,140	19,166	1.74%
1988 - 1989	1,109,697	9,557	0.86%
1989 - 1990	1,120,909	11,212	1.00%
1990 - 1991	1,144,052	23,143	2.02%
1991 - 1992	1,169,199	25,147	2.15%
1992 - 1993	1,196,373	27,174	2.27%
1993 - 1994	1,222,154	25,781	2.11%
1994 - 1995	1,249,946	27,792	2.22%
1995 - 1996	1,279,546	29,600	2.31%
1996 - 1997	1,311,197	31,651	2.41%
1997 - 1998	1,337,146	25,949	1.94%
1998 - 1999	1,361,104	23,958	1.76%
1999 - 2000	1,383,179	22,075	1.60%

(PROJECTED STUDENT POPULATION BASED ON A FIVE-YEAR AVERAGE GROWTH TREND)

2000 - 2001	1,407,792	24,613	1.75%
2001 - 2002	1,432,405	24,613	1.72%
2002 - 2003	1,457,018	24,613	1.69%
2003 - 2004	1,481,631	24,613	1.66%
2004 - 2005	1,506,244	24,613	1.63%





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